TO BE COMPLETED BY APPLICANT

EVALUATION FOR AGENCY USE ONLY

WAC 197-11-960 Environmental checklist.

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

WYPENN Shallow Soils Interim Action/Cleanup

2. Name of applicant:
Port of Tacoma

3. Address and phone number of applicant and contact person:

Port of Tacoma
ATTN: Bill Rehe
PO Box 1837
Tacoma, WA 98401-1837
253-592-6704

4. Date checklist prepared:
September 3, 2013

5. Agency requesting checklist:
Washington Department of Ecology

6. Proposed timing or schedule (including phasing, if applicable):
No phasing is proposed. Once the project receives all permits and approvals, the Port of Tacoma will identify a qualified, licensed contractor to complete the work. The actual construction activity on the site is anticipated to require approximately 10 working days, or less. Currently, it is anticipated that the work will be completed in 2013, however not all approvals have been received at this time, and no definitive schedule has been set.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.
The cleanup is being conducted according to an Ecology approved Cleanup Plan. Other information available includes: a JARPA, technical memos, and wetland delineation, describing the existing environmental conditions, potential impacts, and mitigation.

A construction stormwater general permit Notice of Intent for the project was published on July 29 and August 5, 2013 and the 30-day comment period closed September 5th. Once Ecology provides a final SEPA decision on the project, the project would be covered under the general permit.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.
Once the Wypenn site is cleaned up following the activities described here, the Port of Tacoma plans to sell the Wypenn site to the Puyallup Tribe. Redevelopment on the Wypenn site can only be realized once the shallow soils meet industrial land use cleanup levels under the State's Model Toxics Control Act (MTCA).

Ultimately, the proposed Puyallup Tribal Terminal would include the 3 acre Wypenn site. Environmental review and permitting on the Puyallup Tribal Terminal is underway to evaluate potential effects and provide required mitigation due to future development of Puyallup Tribal Terminal. An application for development of the Puyallup Tribal Terminal is pending with the USACE. No other applications are known to be pending with the City or the State for this site.

The proposed cleanup actions the Port will be implementing on the Wypenn site are under the direction of the Department of Ecology.

10. List any government approvals or permits that will be needed for your proposal, if known.
U.S. Army Corps of Engineers, Nationwide Permit 38 for cleanup actions that occur in jurisdictional waters of the U.S. is anticipated to be required prior to the start of any activity on the site. An application has been filed with the Seattle District USACE.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The Port of Tacoma has reached an agreement with the Washington Department of Ecology to perform a shallow soil cleanup action at the Wypenn property (Figure 1). Total area of the Wypenn parcel is 3 acres. The scope of work involves excavation of 600 to 1000 cubic yards of soil containing arsenic from an area of approximately 0.06 acres. Soils will be removed to a depth between 7 and 10 feet depending on the extent of soils exceeding the MTCA standards. The excavation coincides with the location of Wetland M (See Figure 2 for location of wetland M and Figure 3 for area of excavation). The cleanup is required to comply with cleanup levels under State MTCA standards.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

From I-5 take the Port of Tacoma Road exit. Head north on State Route 509 to Taylor Way. Turn left on Taylor Way. The site is located at 2920 Taylor Way, Tacoma, Washington on the left (west) side of the road. See Figure 1 for site location.

B. ENVIRONMENTAL ELEMENTS

1. **Earth**

a. General description of the site (circle one): **Flat**, rolling, hilly, steep slopes, mountainous, other**.**
The site was once developed for a chemical industry, but now is idle. The site is on the Blair Peninsula and is flat.

b. What is the steepest slope on the site (approximate percent slope)?
The site is flat, 0% slope.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.
The soils consist of silt, sand, and gravel typical of fill material used in the Port of Tacoma industrial tideflats area.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
No unstable soils are in the vicinity.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Soils in one location on the site (approximately 0.06 acres) will be removed by excavation and disposed of at an approved off-site location to clean up the site and comply with state standards for soil quality. No grading is proposed, excavation in one location is proposed. See Figure 3 for the location of the excavation.

Following the excavation, the area will be backfilled will structural fill and soil (See Figure 4 for an illustrated cross-

section). The excavation is anticipated to be up to 10 feet deep, but could be shallower or slightly deeper based on the extent of contaminated soil. Structural fill (e.g., quarry spalls) will be used to refill approximately the deepest 5 to 7 feet of the excavation, which is anticipated to be the portion below the water table. This is type of fill is similar to other fills in the area. Following the placement of structural fill, pit run sand and gravel will be placed. This material will fill the excavation up to 1 foot below the final elevation. The last foot of fill (to final elevation) will be with a moisture retentive manufactured soil suitable to support plant growth.

The structural fill and pit run sand and gravel will be provided from a supplier off-site. Approximately 600 cubic yards of structural fill are anticipated to be needed to fill the excavation. . Approximately 350 cubic yards of pit run sand and gravel are anticipated to be used to fill the excavation. All fill must meet all of the requirements for fill in a cleanup area as required by state law. This material will be tested to ensure it meets all the requirements set by the state for clean fill.

The final layer of soil will be purchased from a reputable supplier off site, such as Cedar Grove Compost, or other provider. Approximately 50 cubic yards are estimated to be needed to reach final grade level. The material will meet the requirements for clean soils set by state law.

Also, a small volume of structural fill (approximately 15 cubic yards) will be placed prior to starting excavation to reinforce and stabilize the construction entrance (See Figure 3 for location of construction entrance).

Fill volumes provided here are approximate and final volumes will be determined at the time of excavation and will depend on the extent of soils exceeding cleanup standards that will be removed during the project.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Erosion during construction is unlikely because the site is flat, the existing soil infiltrates well, and there will be a relatively small area of excavation (less than a tenth of an acre). Erosion is possible however, and appropriate Best Management Practices for erosion control will be installed prior to the start of construction to contain any potential sediment.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

There will be no new impervious surfaces as a result of the cleanup project. No new buildings, parking areas, or other structures are part of the cleanup project.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Prior to work commencing construction, appropriate erosion controls, such as silt fencing and straw wattles, will be placed around the work site. Orange construction fencing will be placed to identify the work limits and prevent unnecessary encroachments.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

During the project, there will be air emissions associated with typical construction equipment over the course of 5 to 10 work days.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Equipment will be maintained in good order. Low sulfur fuels will be used and an anti-idling policy will be enforced.

3. **Water**

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

There are three small wetlands and a ditch. They are referred to as Wetland M, L, and K, and Drainage 9. Refer to Figure 2 for locations of the wetlands and the ditch on the Wypenn site.

Wetland K

Wetland K is a 0.20 acre emergent and shrub-vegetated wetland located on the eastern portion of the Wypenn site. Wetland K receives water from precipitation and surface water runoff. Wetland K drains to Drainage 9, which infiltrates to groundwater west of Taylor Way. Wetland K provides poor hydrologic functions, and poor **water quality and habitat functions. These functions are limited by the small size of the wetland, and the lack of surface water connectivity to downstream waters or wildlife habitat**. **Wetland K will not be disturbed by the soil cleanup activities and is beyond the construction limits.**

Wetland L

Wetland L is a 0.30 acre emergent vegetated wetland located on the southern portion of the Wypenn site. Wetland L receives water from precipitation and surface water runoff. Wetland L is assumed to be isolated because no surface water outlets could be located. Wetland L provided low water quality, hydrologic, and habitat functions. These functions are constrained by the small size of the wetland, and the lack of surface water connectivity to downstream waters or wildlife. No disturbance to Wetland L would occur as a result of soil cleanup activities at the site and is located beyond the construction limits.

Wetland M

Wetland M is a 0.04 acre emergent and shrub wetland located on the southwestern portion of the Wypenn site. Wetland M receives water from precipitation and surface water runoff. Wetland M drains to Drainage 9. Wetland M provides poor hydrologic functions and low water quality and habitat functions. These functions are constrained by the small size of the wetland, and the lack of surface water connectivity to downstream waters or wildlife habitat. Wetland M is the site of soil contamination and will be temporarily disturbed by the soil cleanup activity.

No other wetlands are immediately adjacent to the project site.

Drainage 9
Drainage 9 begins adjacent to the northeast property boundary along Taylor Way, flows south along the property line, then abruptly turns to flow easterly towards Taylor Way. A storm drain is located at the eastern terminus of the drainage. The drainage is approximately 2 to 4 feet wide and 1 to 2 feet deep, lacks clearly defined bed and banks, and is vegetated with cattails, rushes, and young cottonwood trees. Water does not continuously flow through the drainage to the storm drain currently. Hydrology appears to be connected mainly with the groundwater table and a series of isolated, ponded, depressions are seen to form within the drainage during dry periods. The drainage once likely effectively flowed all the way to the storm drain and to Taylor Way, however this is no longer the case. Drainage 9 will not be affected by the soil cleanup activities on the site.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Soil excavation to clean up the site will directly impact Wetland M. No direct impacts will occur to Wetlands K or L, or to Ditch 9. Impacts to Wetland M will be temporary and Wetland M will be restored in place following removal of contaminated soil. See Figure 2 for location of wetlands and ditch on the site and Figure 3 for the location of the proposed excavation.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

The planned excavation for soil cleanup is approximately 0.06 Acres in total, with Wetland M comprising 0.04 acres of the area. It is estimated that approximately 1000 cubic yards of soil material would be removed.

The excavated area will be backfilled in three layers, as described above (See Figure 4), with an estimated total of 1000 cubic yards of material anticipated. The material will be from clean sources off site (structural fill and planting soil) and from clean soils set aside on site during the excavation.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No. No surface water withdrawals or diversions will be performed.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No. No 100-year floodplain is present on the Wypenn site.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No. No discharge of waste materials will be performed. Clean soil materials will be replaced in the excavation.

b. Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

Some groundwater may be withdrawn as a part of dewatering soil materials below the water table during the excavation. The estimated quantity of groundwater is approximately 20,000 to 40,000 gallons. The water will be collected and contained in tanks for off-site disposal.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No waste materials will be discharged for any septic or other system. No structural development is planned. The project is a soil cleanup effort only.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Stormwater runoff would result from excess precipitation that does not infiltrate the onsite soils; there are no significant areas of impervious surfaces on the site. During construction, best management practices will be used to contain any potential erosion and sedimentation that could occur in the area of soil disturbance. The project is a soil cleanup effort and no impervious surfaces will be developed as a result of the effort. Following the cleanup, there will be no new runoff as a result of the project and no permanent new stormwater systems are proposed.

2) Could waste materials enter ground or surface waters? If so, generally describe.

No. No waste materials will be released so no waste materials could enter ground or surface waters.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

Any surface runoff as a result of precipitation during construction will be managed with best practices. Due to the limited area and infiltration of the course soils, runoff is anticipated to be minimal, if any. Best management practices to be used include prohibiting runoff from the site using silt fences, wattles, and or hay bales, reducing risk of soil movement by covering exposed soils, and ensuring tracking is minimal with a suitable construction entrance.

4. **Plants**

a. Check or circle types of vegetation found on the site:

__X__ deciduous tree: alder, maple, aspen, other

_____ evergreen tree: fir, cedar, pine, other

__X__ shrubs

__X__ grass

_____ pasture

_____ crop or grain

__X__ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

_____ water plants: water lily, eelgrass, milfoil, other

_____ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

The work will require the removal of vegetation in an area of approximately 0.06 acres including 0.04 acres of shrub and emergent wetland vegetation. Generally area is vegetated with a mixture of weedy and invasive species and a few wetland plants that volunteered following demolition of the industrial structures in the 1970's. Wetland vegetation will be provided by seeding the area with a wetland seed mix following the cleanup.

e. List threatened or endangered species known to be on or near the site.

There are no listed species on or near the site.

f. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Wetland plants will be replaced by seeding the clean topsoil with a wetland seed mix suitable to the site.

5. **Animals**

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: **hawk**, **heron**, **eagle**, **songbirds**, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.

There are no threatened or endangered species on the site.

c. Is the site part of a migration route? If so, explain.

The Commencement Bay tideflats area is one part of the Pacific Flyway for migrating birds.

c. Proposed measures to preserve or enhance wildlife, if any:

The project is located on previously developed industrial property. The project will enhance ecosystem function by removing contaminated soils which will help wildlife.

6. **Energy and natural resources**

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

None. The completed project will not have a new structure of any kind and no energy needs will be present.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No. No structures are to be built by this project.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None.

7. **Environmental Health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

The purpose of this project is to remove soils currently contaminated with concentrations of arsenic at levels that exceed State cleanup levels.

1) Describe special emergency services that might be required.

None.

2) Proposed measures to reduce or control environmental health hazards, if any:

Applicable safety guidelines and best management practices for human and environmental safety will be used during construction activities.

b. **Noise**

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

The site is located in an industrial area and noise is not expected to affect the project.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

There will be noise generated during construction activities; however, the noise will not exceed the current ambient levels present in this industrial area.

3) Proposed measures to reduce or control noise impacts, if any:

None.

8. **Land and shoreline use**

a. What is the current use of the site and adjacent properties?

Currently, the site and the adjacent property are zoned as Port industrial properties. There is no structure on the site and the site is idle. Adjacent property uses include a container transfer facility and truck and trailer storage area.

b. Has the site been used for agriculture? If so, describe.

No. The site was previously developed for chemical industrial uses.

c. Describe any structures on the site.

There are no structures on the site currently

d. Will any structures be demolished? If so, what?

No structures will be demolished.

e. What is the current zoning classification of the site?

S-10 Port Industrial

f. What is the current comprehensive plan designation of the site?

High Intensity

g. If applicable, what is the current shoreline master program designation of the site?

Urban Environment

i. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

There are three small wetlands and a ditch on the proposed project site. See answer to Question A-1 above for details.

i. Approximately how many people would reside or work in the completed project?

None.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

None.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

No structures or other development would result from the site soil cleanup.

9. **Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

c. Proposed measures to reduce or control housing impacts, if any:

None.

10. **Aesthetics**

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

No structures would be developed by the soils cleanup action.

b. What views in the immediate vicinity would be altered or obstructed?

None.

c. Proposed measures to reduce or control aesthetic impacts, if any:

There will be no aesthetic impacts.

11. **Light and glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

c. What existing off-site sources of light or glare may affect your proposal?

None.

d. Proposed measures to reduce or control light and glare impacts, if any:
None.

12. **Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity?

None. This is an industrial property with no recreational opportunities.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No. There are no recreational activities on the current contaminated site and none would be displaced.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None.

13. **Historic and cultural preservation**

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

There are no places or objects on or next to the site known to be listed or proposed for national, state, or local preservation registers.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None are known.

c. Proposed measures to reduce or control impacts, if any:

None.

14. **Transportation**

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

The site is located on Taylor Way in Tacoma, Washington. Site access during cleanup would be via the current entrance from Taylor Way. See Figure 3.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Pierce Transit does not directly serve the area. The nearest transit stop is at the corner of Lincoln Avenue and Port of Tacoma Road.

c. How many parking spaces would the completed project have? How many would the project eliminate?

The completed project will not require new parking or eliminate any existing parking as no development is planned.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No. The project will not use water, rail or air transportation.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

The project will not generate any new vehicular trips. During construction, truck trips to remove contaminated soils from the site are estimated at approximately 20 total loads, with about 8 to 10 trips per day of excavation and filling.

g. Proposed measures to reduce or control transportation impacts, if any:

None.

15. **Public services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No. No structures or other development is proposed.

b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. **Utilities**

a. Circle utilities currently available at the site: **electricity**, natural gas, **water,** refuse service, telephone, sanitary sewer, septic system, other.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

No new utilities are proposed as no new development is planned.

C. SIGNATURE

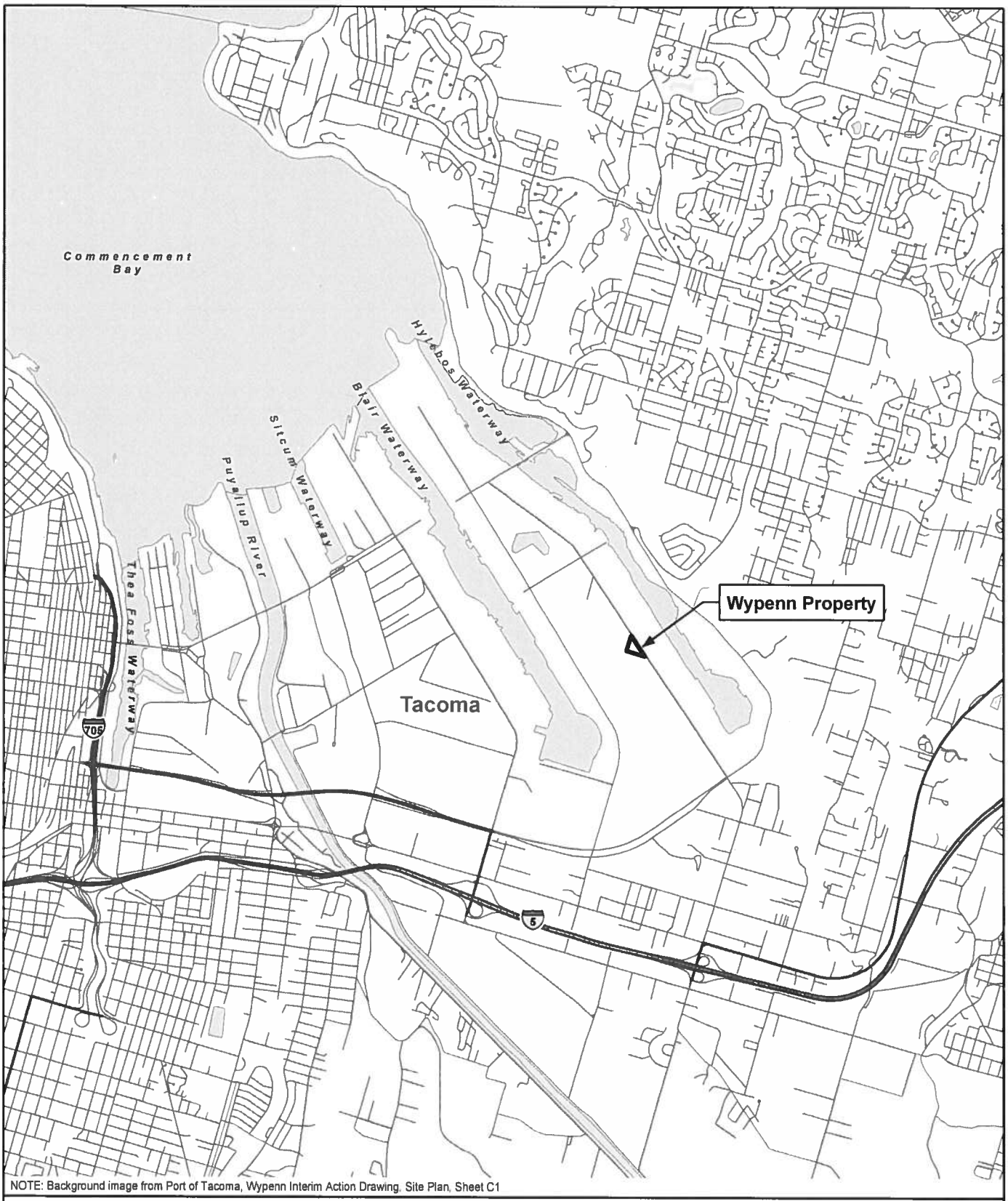
TO BE COMPLETED BY APPLICANT

EVALUATION FOR
AGENCY USE ONLY

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: .....

Date Submitted: 9/3/2013



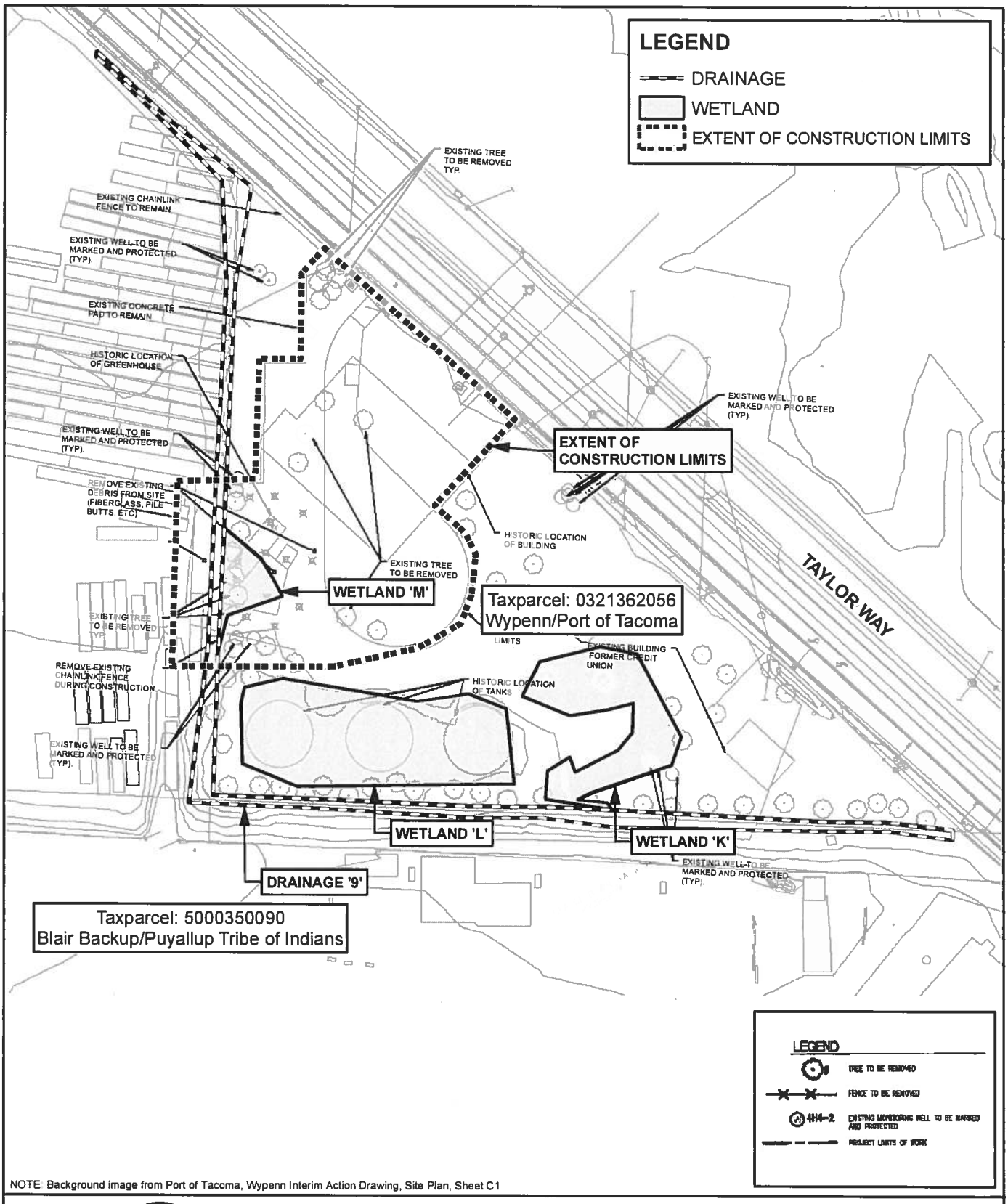
NOTE: Background image from Port of Tacoma, Wypenn Interim Action Drawing, Site Plan, Sheet C1

LOCATION MAP

0 0.5 1 2 Miles

SHEET:1 of 4

DATE: Sept 2013



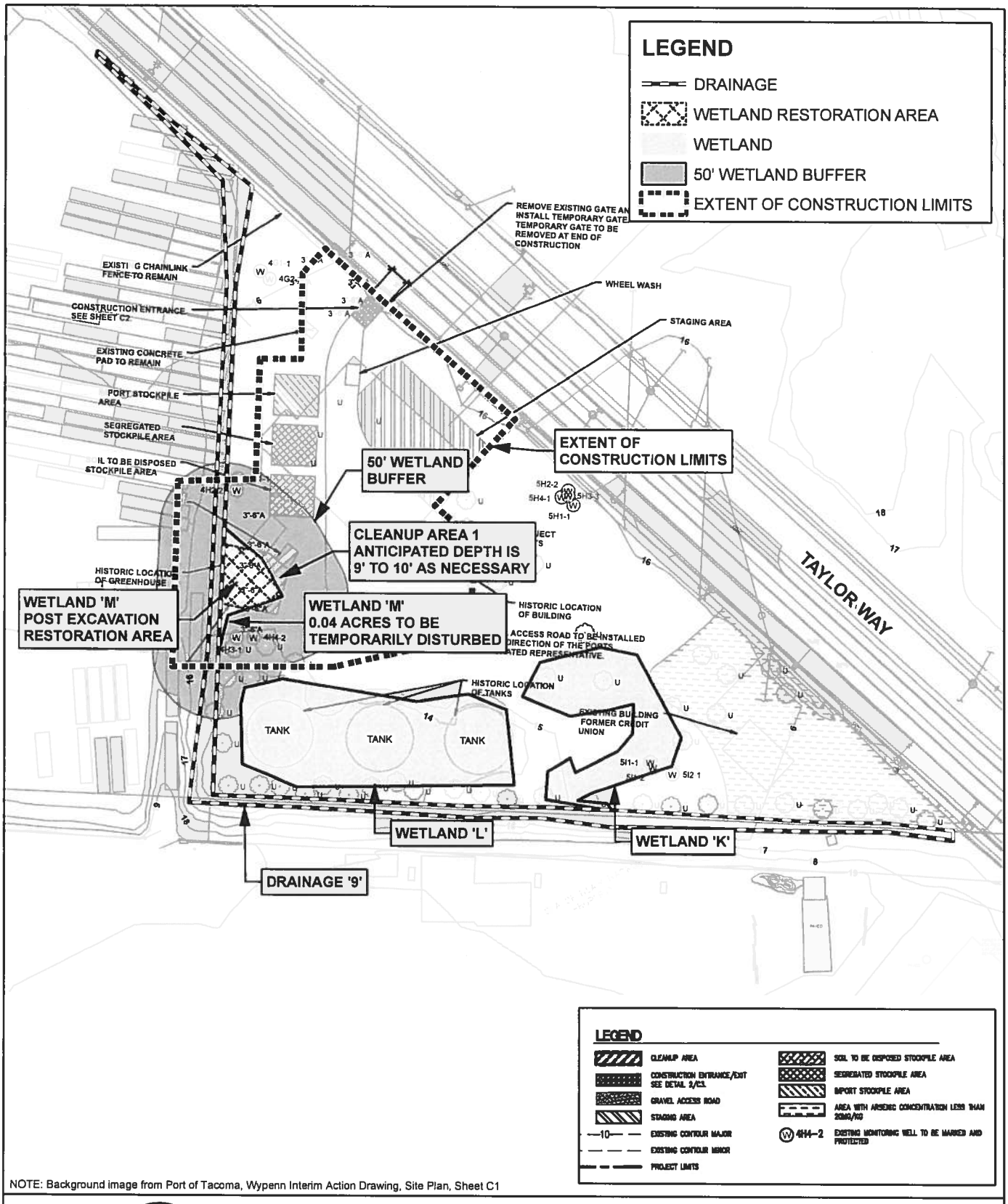
NOTE: Background image from Port of Tacoma, Wypenn Interim Action Drawing, Site Plan, Sheet C1

EXISTING CONDITIONS

0 50 100 200 Feet

SHEET:2 of 4

DATE: Sept 2013



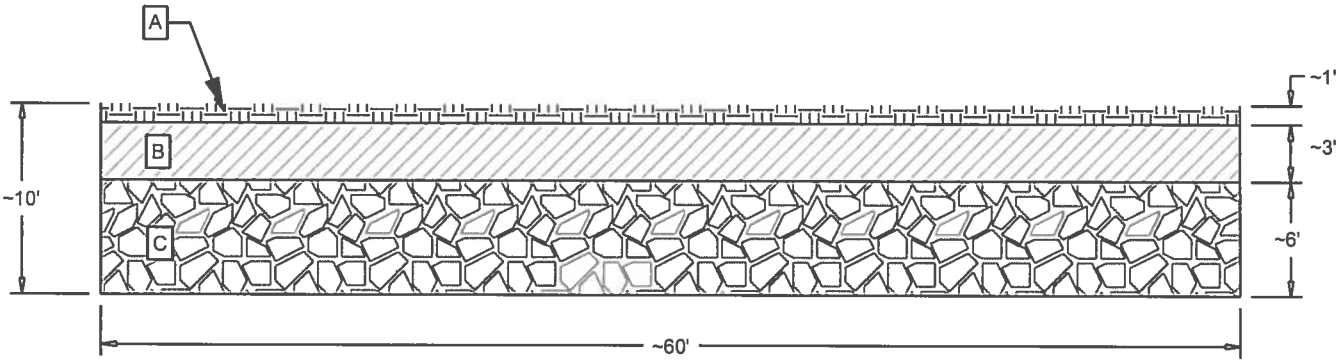
NOTE: Background image from Port of Tacoma, Wypenn Interim Action Drawing, Site Plan, Sheet C1

CONSTRUCTION PLAN

0 50 100 200 Feet

SHEET:3 of 4

DATE: Sept 2013



TYPICAL CROSS SECTION

MATERIAL LIST

A HIGH MOISTURE RETENTIVE MANUFACTURED SOILS SUITABLE FOR PLANT GROWTH. THE FINAL LAYER OF SOILS WILL BE PURCHASED FROM A SUPPLIER SUCH AS CEDAR GROVE AND WILL MEET ALL OF THE REQUIREMENTS FOR SOILS USED TO FILL A CLEANUP SITE, AS SET BY THE STATE OF WASHINGTON. APPROXIMATELY 50 CUBIC YARDS WILL BE USED TO FILL THE HOLE TO FINAL GRADE LEVEL. SEED WITH WETLAND SEED MIX.

B CLEAN PIT RUN SAND AND GRAVEL FROM THE SITE SHALL BE PLACED UP TO 1 FOOT BELOW THE FINAL GRADE ELEVATION. THE CLEAN FILL SOIL SHALL BE PROVIDED FROM A SUPPLIER OFF SITE. THIS MATERIAL MUST MEET ALL THE REQUIREMENTS SET BY ECOLOGY FOR CLEAN FILL OF A CLEANUP SITE. APPROXIMATELY 350 CUBIC YARDS ARE ANTICIPATED TO BE USED TO FILL THE MIDDLE SECTION OF THE EXCAVATED HOLE.

C QUARRY SPALL SHALL BE USED TO REFILL THE HOLE BELOW THE WATER TABLE, ESTIMATED TO BE THE FIRST 5 TO 7 FEET. THE QUARRY SPALL SHALL BE PROVIDED FROM A SUPPLIER OFF SITE AND MUST MEET ALL OF THE REQUIREMENTS FOR FILL IN A CLEANUP AREA. APPROXIMATELY 600 CUBIC YARDS ARE ANTICIPATED TO BE USED TO FILL THE BASE OF THE EXCAVATED HOLE.

CROSS SECTION FOR BACKFILL

DATE: Sept 2013